

## F-18 MULTINATIONAL COPRODUCTION ISSUES

By

FREDERICK H. BARNES

For the next few minutes, I would like to share with you some impressions gained from being associated with F-18 international coproduction programs.

The overall subject of multinational coproduction contains many varied and diverse elements that are new to normal Department of Defense (DOD) management procedures and, what is just as important, many factors that are controversial. In fact, there are many who emphasize these elements as obstacles to coproduction rather than looking at the obvious advantages of such programs. To me, this is the wrong way of looking at the subject.

As I see it, multinational coproduction programs are not only here to stay but actually are increasing simply because they make sense no matter how you look at them -- politically, militarily, economically, or industrially. From the political and military viewpoint, these programs strengthen our alliances with other nations through standardization and interoperability of military hardware. From the economic viewpoint, each country gains by sharing the research and development costs and realizing savings in production through joint economies of scale. What is more important, each country gets an advanced weapon system that it may not have been able to afford had it been forced to go it alone.

Finally from an industrial viewpoint, each nation's industrial technological capability is uprated and high technology employment is created. I don't think we sufficiently realize, in this country, the emphasis our allies put on employment. In this country we tend to emphasize only the product while our allies give equal attention to the number of jobs created. In fact, industry is primarily viewed as a source of employment. The old saying, "That we adapt our work force to fit the product while others adapt the product to fit the work force," contains a large element of truth.

Despite these obvious advantages, one often hears disparaging remarks, all the way from those who dwell on the lack of a unified U.S. Government (USG) policy to those who believe coproduction programs are overblown and oversold. I believe this viewpoint stems from "quick-look" calculations. These programs, on the contrary, are long-range undertakings and do not readily lend themselves to "quick-look" calculations. Indeed, their advantage may not be completely appreciated until after such programs have been completed.

---

**Editor's Note:** This paper was originally presented at the Annual Convention of the Federal Bar Association, Baltimore, Maryland, on September 20, 1984.

<b>Report Documentation Page</b>			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE <b>1984</b>	2. REPORT TYPE	3. DATES COVERED <b>00-00-1984 to 00-00-1984</b>		
4. TITLE AND SUBTITLE <b>F-18 Multinational Coproduction Issues</b>		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Defense Institute of Security Assistance Management (DISAM),DISAM/DR,2475 K Street,Wright-Patterson AFB,OH,45433-7641</b>		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>				
13. SUPPLEMENTARY NOTES <b>The DISAM Journal, Winter 1984-85, Volume 7, Number 2, p.56-59</b>				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>	<b>Same as Report (SAR)</b>	<b>4</b>
19a. NAME OF RESPONSIBLE PERSON				

I am sure our allies appreciate the value of such programs. Many nations, especially the developing nations still staggering from the blows of the OPEC oil price increases, are now burdened with high interest rates and unemployment. Thus, these nations are turning to coproduction programs with offset requirements in order to stretch their defense dollars. Offsets as a factor of coproduction have become a way of life and many countries have policies requiring offsets as a prerequisite to participation in these programs. For example, Norway has a policy requiring 100% offsets. To compound the situation, many countries are now attaching penalties to the required offsets. For example, Indonesia attaches a 50% offset shortfall penalty to its offset requirements. All of these details create additional management problems; however, in a larger sense, increased military effectiveness via coproduction programs is a much bigger plus.

At the functional level, in the F-18 coproduction program with Australia, the U.S. airframe and engine manufacturers entered into deeds with that country which legally documented the industrial participation programs. The USG agreed to include in its letters of offer and acceptance those manufacturing and assembly tasks that were to be performed by Australian industry, but only for that nation's aircraft being procured through FMS procedures. No commitment was made by the USG concerning offset work proposed by the aircraft manufacturers. However, an agreement was made with Australia relative to competitive pricing guidelines for possible production of components for U.S. Navy F-18 aircraft. Also, as part of the FMS program, Australia will absorb the cost of modernizing those industries engaged in this program, a premium that runs into millions of dollars. Similar industrial programs are being planned with Spain -- a program just now getting underway.

Interestingly enough, one usually associates such programs only with the advanced industrial nations. However, a recent study showed that many of the developing countries have such industrial capabilities, and can be expected to require coproduction with offsets as a factor of any arms purchase. In the emerging nations alone, this study showed eight nations can produce armored cars, nine can make missiles, sixteen can manufacture fighter aircraft, and twenty-five have shipbuilding capabilities.[1]

There is a continuing discussion about the USG involvement in the offsets commitment. Having been burned a few times, the USG established a policy in 1978 against becoming directly involved in offset arrangements, either as a participant or a guarantor. It was felt that the USG should not become involved in offsets that are primarily commercial in nature. The USG contends that this area should be left to the manufacturers who benefit from these programs and the countries concerned. This is as it should be. However, since most coproduction programs involve upgrading a customer's technological capability, a certain level of technology transfer takes place. As a controller of the transfer of technology, the USG cannot avoid taking an interest in these individual programs. In addition, any factor that affects the military capability of our allies is of interest to the government.

As long as there are high technology multinational programs that require upgrading of foreign industrial capabilities, there will be an element of technology transfer. Also, as long as this country maintains its technological

superiority, most of the transfer will be from us to our allies. As I see it, our concern is not the transfer of technology, for transfer there will be, but the control of the transfer mechanism. We need to insure that the intended data gets to our allies and does not fall into the hands of any potential adversaries. This concern is also shared by our allies. At a recent London conference, sponsored by the Economist, Sir Frank Cooper stated, "We all support not supplying technology to the Eastern Bloc, but we are likely to blind ourselves at least as quickly as we blind the Soviet Union, if we are not careful, particularly if we have too many blanket controls that are not applied sensibly and rationally."<sup>[2]</sup> Our allies have repeatedly warned that technology controls should be imposed only on the grounds of security and never as a subtle new form of protectionism. The same concerns were recently expressed for the U.S. by Dr. Delauer, Under Secretary of Defense for Research and Engineering, when he said, "We must slow the leakage of Western technology to the East; however, we must simultaneously hasten the rate at which the West incorporates its technology into alliance weapon systems."<sup>[3]</sup> The problem is further aggravated by the existence of dual purpose technology, that is technology that is applicable to either commercial or military purposes. The Department of Commerce, as well as DOD, has taken an active interest in this area. Should anyone be laboring under the mistaken impression that technology transfer is a neglected subject, a recent USAF conference on the subject brought out that in FY 85, 184 full-time DOD employees will be engaged in technology transfer-related work. In addition, at least 30 DOD directives and regulations exist on the subject.<sup>[4]</sup>

In the F-18 case, the Navy Foreign Disclosure Office reviewed all industrial agreements to ensure the releasability of the data for manufacturing in a particular country. Spain and Canada, as members of NATO, and Australia, a member of ANZUS, were not a serious problem when considering the release of composite technology, manufacturing processes, etc. The release of these technologies resulted in a significant increase in the manufacturing capabilities of these countries. However, new technology developments involving sophisticated electronic systems may not be fully releaseable for manufacturing. Release of these systems and their manufacturing data may not be in the best interest of the United States national security. This is difficult to explain to a purchasing country. Thus, the resolution of these technology transfer issues is often made at the highest levels of the involved governments. I can only say that for the F-18 programs the issue of technology transfer has not been a major problem for the program office in establishing the final industrial participation program for Canada, Spain, and Australia.

In summary, F-18 Foreign Military Sales (FMS) programs involving industrial participation are currently being conducted consistent with the existing DOD directives and policies. The management challenges are being met by the Navy and the F-18 contractors. The F-18 countries have accepted the increased costs of industrial participation by their industries in the F-18 program. The expectations of the countries in getting U.S. manufacturers to meet their offset agreements appears to be working without the USG becoming directly involved in resolving differences. We in the F-18 program office expect to see industrial participation to be a part of every F-18 FMS Program.

## ENDNOTES

1. Church, Dale W., "Countertrade, Technology Transfer, and International Defense Sales," Defense Management Journal, Second Quarter, 1984, p. 9.
2. As cited in "Too Many Bureaucrats," Defense Attache, No. 4, 1984, p. 53.
3. As cited in Ablard, Charles D., "Future Trends in NATO Armament Collaboration." An unpublished paper presented at the Annual Conference of the International Strategic Studies Association, Washington D.C., March 12-15, 1984.
4. Oulton, Donald P. and Savage, James C., "Technology Transfer: Safeguarding Technical Data," The DISAM Journal, Summer, 1984, pp. 85, 101-102.

## ABOUT THE AUTHOR

Frederick H. Barnes has been continuously engaged in the management of USN aircraft for security assistance programs since 1969. He is currently the USN F-18 aircraft FMS pre-sale manager, specializing in coproduction matters. Mr. Barnes holds a BA in Public Administration from the University of Upper Iowa.